

**DEPARTMENT OF ZOOLOGY**  
**M.D. UNIVERSITY, ROHTAK**

Name of the Faculty Member: **Dr. Ranjana Jaiwal**  
Designation: **Assistant Professor**  
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**1. Educational qualifications**

Degree	Year of passing	University/Institute
Ph.D.	1990	Banaras Hindu University, Varanasi
M.Phil.	1986	CCS University, Meerut
M.Sc.	1985	CCS University, Meerut
B.Sc.	1983	Agra University, Agra

**Field of specialization: Molecular Endocrinology & Molecular Biology**

**2. Career Profile**

Designation	Institution	Duration
Asstt. Professor (Regular)	Deptt. of Zoology, M.D.University, Rohtak	2009 to till date
Lecturer (Guest Faculty)	Advanced centre for Biotechnology, M. D. University, Rohtak	2007 to 2009
DST-Women scientist	Advanced centre for Biotechnology, M. D. University, Rohtak	2004 to 2007
Lecturer (Temporary)	AIJHM College, Rohtak	1997 to 1999
Post Doctorate	Department of Biosciences, M.D. University, Rohtak	1992 to 1997
1. CSIR-RA		
2. Women Scientist, DST, New Delhi	Advanced centre for Biotechnology, M.D. University, Rohtak	2004 to 2007

**3. Research advisory**

**No. of students supervised for Ph. D = 5**

Awarded : 1  
Registered : 4

**No. of students supervised for P.G (Dissertation) = 34**

#### 4. Projects undertaken

S.No.	Title of project	Duration	Funding agency
1.	Neuroendocrine regulation of seasonal reproduction in female Indian palm squirrel ( <i>Funambulus pennanti</i> )	5-years	CSIR, New Delhi
2.	Evaluation of transgenic mungbean plants for resistance to bruchids	3-years	DST, New Delhi
3.	Low cost production of Insulin for diabetic patients	3-years	UGC, New Delhi

#### 5. Publications:

Research Papers published = **31**

Impact factor (total) = **43.124**

#### List of publication

S.No.	Author(s)	Title	Name of Journal	Volume /ISBN No.	Page	Year
1.	Kumar Parveen, Narwal Vinay <b>Jaiwal Ranjana</b> and Pundir CS	“Construction and application of sarcosine biosensor based on SOxNPs/AuE for determination of prostate cancer”	Biosensors and Bioelectronics  <b>IF = 8.173</b>	122/ 0956-5663  <a href="https://doi.org/10.1016/j.bios.2018.09.003">https://doi.org/10.1016/j.bios.2018.09.003</a>	140-146	2018
2.	Meenakshi Sindhu, Anil Kumar, Manish Sainger, <b>Ranjana Jaiwal</b> and Darshna Chaudhary	<i>In vitro</i> plant regeneration of Cowpea ( <i>Vigna unguiculata</i> (L.) Walp) via direct shoot organogenesis from primary leaf explants	<i>Annals Biology</i> <b>(Accepted)</b>	ISSN: 0970-0153		
3.	Verma S, Malik M, Kumar P, Choudhary D, Jaiwal PK and <b>Jaiwal Ranjana</b>	Susceptibility of four Indian grain legumes to three species of stored pest, bruchid ( <i>Callosobruchus</i> ) and effect of temperature on bruchids	International Journal of Entomology Research  <b>RJIF = 5.24</b>	3/2455-4758	5-10	2018
4.	Kumar P, <b>Jaiwal Ranjana</b> and Pundir CS	An improved amperometric creatinine biosensor based on nanoparticles of creatininase, creatinase and sarcosine oxidase,	Analytical biochemistry  <b>IF = 2.34</b>	537/ 0003-2697	41-49	2017

5.	Sainger M, Jaiwal A, Sainger P A, Chaudhary D, <b>Jaiwal R</b> and Jaiwal PK,	Advances in genetic improvement of Camelina sativa for biofuel and industrial bioproducts	Renewable and Sustainable Energy Reviews <b>IF: 8.051</b>	68/1364-0321	623-637	2017
6.	Birla, D., Malik, K., Sainger, M., Chaudhary, D., <b>Jaiwal, R</b> and Jaiwal, P. K.	Progress and challenges in improving nutritional quality of rice.	Critical Rev. Food and Nutri. <b>IF: 6.077</b>	57/1040-8398	2455-2481	2015
7.	Sainger M, Chaudhary D., Dahiya S, <b>Jaiwal R</b> , and Jaiwal PK	Development of an efficient in vitro plant regeneration system amenable to <i>Agrobacterium</i> -mediated transformation of a recalcitrant grain legume blackgram ( <i>Vigna mungo</i> L. Hepper)	Physiology and Molecular Biology of Plants <b>IF: 1.35</b>	21/0971-5894	505-517	2015
8.	Kumar P., Jaiwal, A. and <b>Jaiwal, Ranjana</b>	Micro RNAs: Their role in post transcriptional regulation and expression of gene. Proc. Natl. Seminar on “Innovative Researches in Life Science	Proc. Natl. Sem. on “Innovative Researches in Life Science”	978-81-920945-5-7	110-114	2015
9.	Jaiwal, A., Kumar P. and <b>Jaiwal, Ranjana</b>	Application of RNA Interference (RNAi) in Insect Pest Control	Proc. Natl. Sem. On “Innovative Researches in Life Science”	978-81-920945-5-7	15-20	2015
10.	Chaudhary, D., Sainger, M., Kumar, A., Yadav, H., Sindhu, M. and <b>Jaiwal Ranjana</b>	Transient gus assay to optimize <i>Agrobacterium</i> mediated genetic transformation of cowpea ( <i>Vigna unguiculata</i> l.walp)	Proc. Natl. Sem. on” Innovative Researches in Life Science”	978-81-920945-5-7	26-30	2015
11.	Dhayal, D., Parasher, H., Sharma, A., Kumar, P., Adak, T. and <b>Jaiwal R.</b>	Diversity of Culturable Midgut Bacteria of Indian Malarial vector <i>Anopheles Stephensi</i>	J. Internatl. Acad. Res. Multidiscip. <b>IF: 1.625</b>	2/2320-5083	305-311	2014
12.	Dhayal, D., Sharma, A., Adak, T. and <b>Jaiwal, R.</b>	Effect of <i>Carnobacterium Sp.</i> on Plasmodium Sporogony in <i>Anopheles Stephensi</i> Mosquito	Internatl. J. Life Sci. Res.	<b>3/ 2348-313X</b>	50-54	2014
13.	Jaiwal, A. Chaudhary, D. and <b>Jaiwal, Ranjana</b>	Genetically modified crops for developing countries.	Proc. Natl. Sem. on “Next Generation Sciences: Vision 2020 and Beyond (NGSV)	978-81-920945-4-0	312-323	2014
14.	Jaiwal, A. and <b>Jaiwal, Ranjana</b>	Genetic reprogramming of animals: Animal Cloning.	Proc. Natl. Sem. on “Next Generation Sciences: Vision	978-81-920945-4-0	324-334	2014

			2020 and Beyond (NGSV)”			
15.	<b>Jaiwal R.</b> and Chaturvedi CM.	Four Hour Temporal Relation of 5-HTP and L-DOPA Induces Inhibitory Responses in Recrudescing Gonad of Indian Palm Squirrel ( <i>Funambulus pennanti</i> )	ISRN Endocrinology	2013	1-5	2013
16.	Priyanka, Bhardwaj S. and <b>Jaiwal Ranjana</b>	An overview of an auto immune disease systemic lupus erythematosus.	Proc. Natl. Sem. on “Promising Trends in Sci. Galaxy (PTSG-2013)”	978-81-920945-2-6	195-205	2013
17.	Priyanka and <b>Jaiwal Ranjana</b>	Production and Expression of Recombinant Erythropoietin in Plants	Proc. Natl. Sem. on “Promising Trends in Sci. Galaxy (PTSG 2013)”	978-81-920945-2-6	8-19	2013
18.	Janhawi and <b>Jaiwal Ranjana</b>	ATP-dependent Chromatin remodeling.	Proc. Natl. Sem. on “Promising Trends in Sci. Galaxy (PTSG-2013)”	978-81-920945-2-6	58-66	2013
19.	<b>Jaiwal Ranjana</b> , Dhayal D and Adak T	Symbiotic gut bacteria of insects: disease control & future perspectives.	Proc. Natl. Sem. on Combating Diseases: Cause to cure	978-81-920945-2-6		2012
20.	<b>Jaiwal Ranjana</b> and Dhayal D	Low cost production of insulin for diabetic patient.	Proc. Natl. Sem. on Combating Diseases: Cause to cure	978-81-920945-2-6	45-49	2012
21.	<b>Jaiwal Ranjana</b> and Bharadwaj S.	Emerging applications of internet in endocrinology.	Proc. Natl. Sem. on Internet: Applications in Research	978-81-920945-1-9	48-49	2011
22.	Dhayal D, Sharma A, Parasher H, <b>Jaiwal Ranjana</b> and Adak T	Polypeptide profiling of <i>Plasmodium</i> infected and uninfected host plasma	Proc. Natl. Sem. on Internet: Applications in Research	978-81-920945-1-9	1-5	2011
23.	<b>Jaiwal Ranjana</b>	Inter-relationship between the seasonal adrenal and gonadal cycles of male Indian Palm Squirrel, <i>Funambulus pennanti</i> .	Proc. Natl. Seminar Computing Life: Raw to Refined	978-81-920945-0-2).	210-214	2010
24.	<b>Jaiwal Ranjana</b>	Effect of altered adrenal function on seasonal reproduction of Indian Palm Squirrel ( <i>Funambulus pennanti</i> ).	Proc. Natl. Conf. on Environ. and health issues: In a changing climatic scenario,	-	254-262	2010
25.	Sonia, <b>Jaiwal Ranjana</b> and Jaiwal P K	Genetic Engineering for storage pest resistance	Physiol. Mol. Biol. Plants <b>IF: 1.35</b>	13/ 0971-5894	101-113	2007

26.	Chowdhury S, Madanpotra S, <b>Jaiwal Ranjana</b> , Saini R, Kumar PA and Jaiwal P K	<i>A. tumefaciens</i> mediated high frequency genetic transformation of cowpea ( <i>V. unguiculata</i> ) and transmission of transgenes to progeny.	Plant science <b>IF = 3.437</b>	172/ 0168-9452	692-700	2007
27.	<b>Jaiwal Ranjana</b> and Chaturvedi C M	Seasonal and diurnal variations in the hormonal profile of thyroid in relation to gonadal cycle of Indian Palm Squirrel, <i>Funanbulus pennanti</i>	J. Environ. Biol. <b>IF = 0.697</b>	17/ 0254-8704	93-100	1996
28.	<b>Jaiwal Ranjana</b> and Chaturvedi C M	Elimination of testicular regression by 12 h temporal relationship of serotonergic and dopaminergic activity in Indian Palm Squirrel, <i>Funanbulus pennanti</i> .	J. Neural Transmission (Springer-Verlag) <b>IF = 2.392</b>	0300-9564 (Print)	45-52	1991
29.	<b>Jaiwal Ranjana</b> and Chaturvedi C M	Temporal synergism of neurotransmitter affecting drugs and seasonal reproductive responses of Indian Palm Squirrel, <i>Funanbulus pennanti</i> .	J. Neural Transmission (Springer-Verlag) <b>IF = 2.392</b>	0300-9564 (Print)	31-40	1990
30.	<b>Jaiwal Ranjana</b> , Chaturvedi C M and Dubey L B	Cloacal gland and testicular response of Japanese quail to male hormones and photoperiod interaction	Trends Life Sci	3	1-6	1988
31.	<b>Jaiwal Ranjana</b> and Chaturvedi C M	Serotonergic and dopaminergic drugs in the regulation of seasonal reproduction of Indian Palm Squirrel, <i>Funanbulus pennanti</i> .	Proc. Natl. Symp. on current status of Gen. Comp. Endo	-	Pp 76-77	1988

### Books/Reports/Chapters/General articles etc

S. No.	Title	Author's	Publisher	Year of publication
1	<i>Agrobacterium</i> Protocols: Sesame ( <i>Sesamum indicum</i> L.)	Kapoor, S., Parmar, S. S., Yadav, M., Chaudhary, D., Sainger, M., <b>Jaiwal R.</b> , and Jaiwal, P. K	In: Methods in Molecular Biology, Wang, K. (ed.), Volume 2, 1224,	2015
2	GM Crops for Developing World in the Era of Climate Change: For Increase of Farmer's Income, Poverty Alleviation, Nutrition and Health.	Sainger M, Sainger P A, Chaudhary D., <b>Jaiwal R.</b> , Singh RP, Dhankher OP, and Jaiwal PK	In: Genetic manipulation in plants for mitigation of climate change,  Springer DOI: 10.1007/978-81-322-2662-8_11	2015

### 6. Conferences/Seminar /Workshops

No. of conferences/seminar attended: 63

Papers presented during national conferences/seminars: 35

Papers presented during international conferences/seminars: 6

Co-chair the sessions in national seminars: 8

Seminar/Conference organized: 6

**7. Training/workshop/Refresher/Re-orientation Courses: 10**

**Ranjana Jaiwal**